

MassDEP's Authority

MGL Chapter 21G

310 CMR 36.00

Water Supply

Water Quality

Agriculture

Waste Water

Hydropower

Balance



Navigation

Recreation

Wetland Habitat

Fish and Wildlife

Flood Plain

**Groundwater
Recharge**

Who Does WMA Regulate?

All Consumptive Users withdrawing
over 100,000 gpd

(Golf Courses, Public Water Supplies,
Cranberry Bogs, Industrial Water Users)

873 Registrations

334 Permits

Total Authorized Water Volume =
1,337.45 MGD

Problems



Egypt River, Rowley



Lawn Irrigation

Dams

Ex A: DEP Presentation on
WMA Permitting Policy

April 2004 Permitting Policy

Goal: Wise & Balanced Water Use

Applies to:

- Permit and Amendment Applications
- 5-Year Reviews

- **More protection of our stressed water resources through implementation of conservation measures**
- **Reduce nonessential water use**
- **Apply higher Performance Standards to increases in water use**
- **Mitigate increases in water use where feasible**

Policy & Guidance Objections

- Policy will not restore streamflows
- Lack of public process
- Science behind stressed basinse
- Financial Hardship
- Winter-Summer Ratios, RGPCD & UAW Standards are Arbitrary & Unworkable

2006 Guidance Revisions

- **Enforcement Forbearance in High & Medium Basins**

- clarified DEP's enforcement response
- Provide pws with compliance plan options
- Focus resources on most severe exceedences

- **Extended Timelines for meeting Standards**

- up to 5 years to comply with Standards

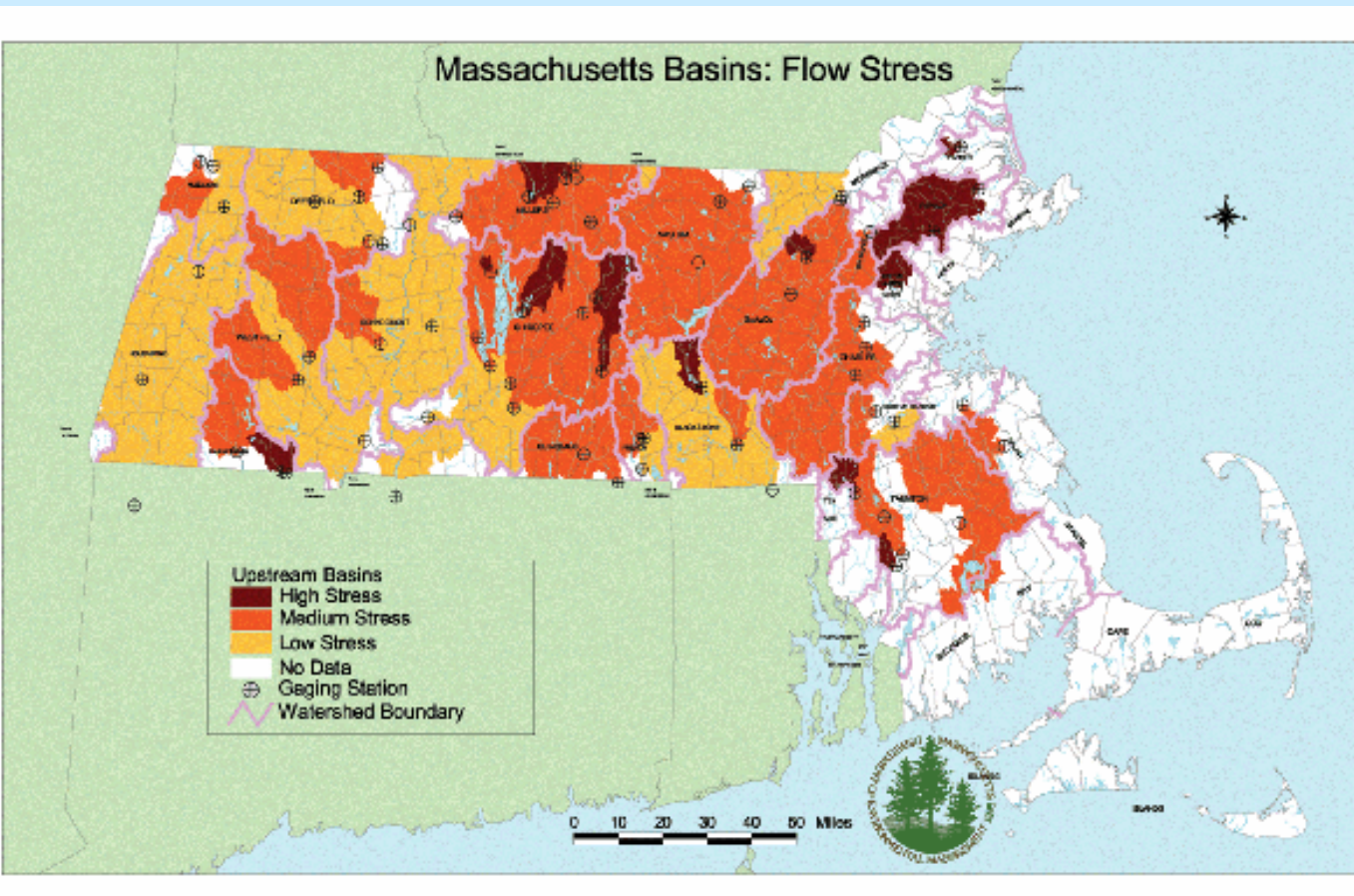
Simplified summer use restrictions

- clear set of options
- basin distinctions
- eliminated hard summer cap

Financial Hardship

- delay or waive requirements for pws who hold or reduce water use

Stressed River Basins



- 16 High Stress
- 36 Medium Stress
- 18 Low Stress
- Unassessed: mostly coastal basins

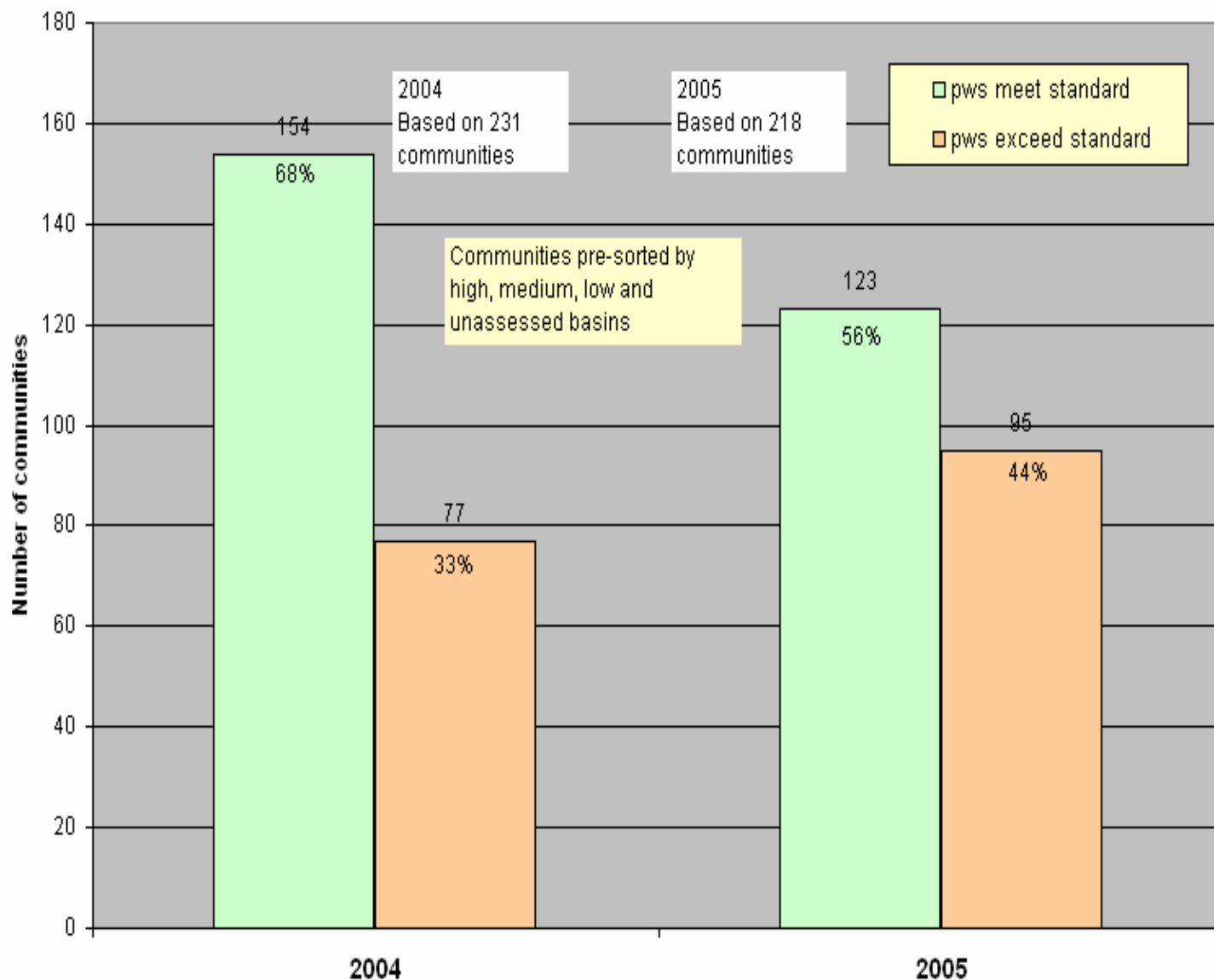
Based on USGS subbasin streamgages
Appendix A: DEP Presentation on
WMA Permitting Policy

Performance Standards

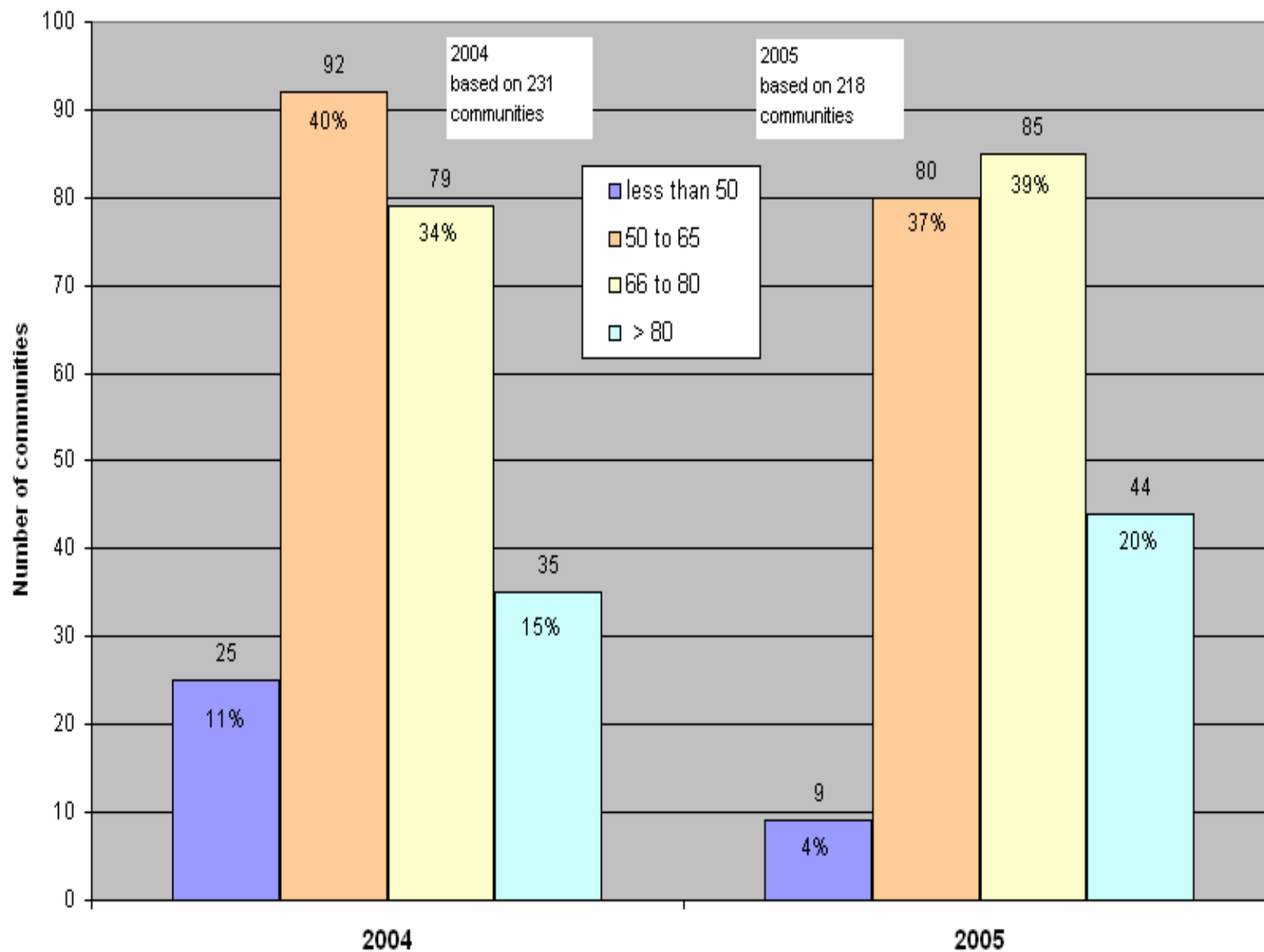
Residential Gallons Per Capita Day (RGPCD)

- 2 full calendar years to comply
- High and Medium Stressed: 65 RGPCD
 - Enforcement Forbearance 66 – 72 rgpcd
- Low and Unassessed: 80 RGPCD
- 2005 State Average = 70 RGPCD

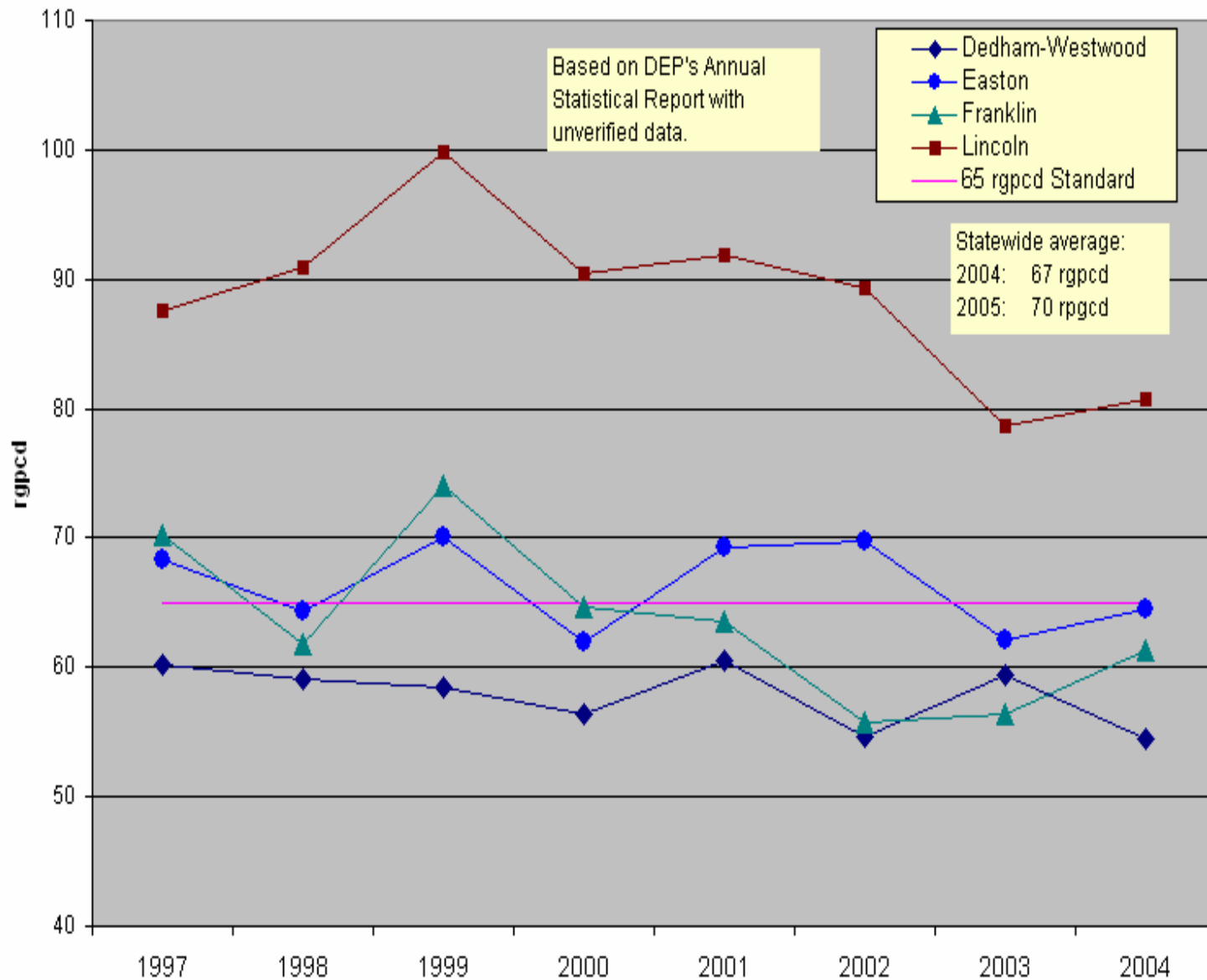
**Residential Gallons Per Capita Day (rgpcd) Standard Statewide
Municipal Public Water Suppliers (PWS), 2004 - 2005**



Distribution of Residential Gallons Per Capita Day (rgpcd) **Municipal Public Water Suppliers (PWS), 2004 - 2005**



**Residential Gallons Per Capita Day (rgpcd)
For Selected Towns (1997-2004)**

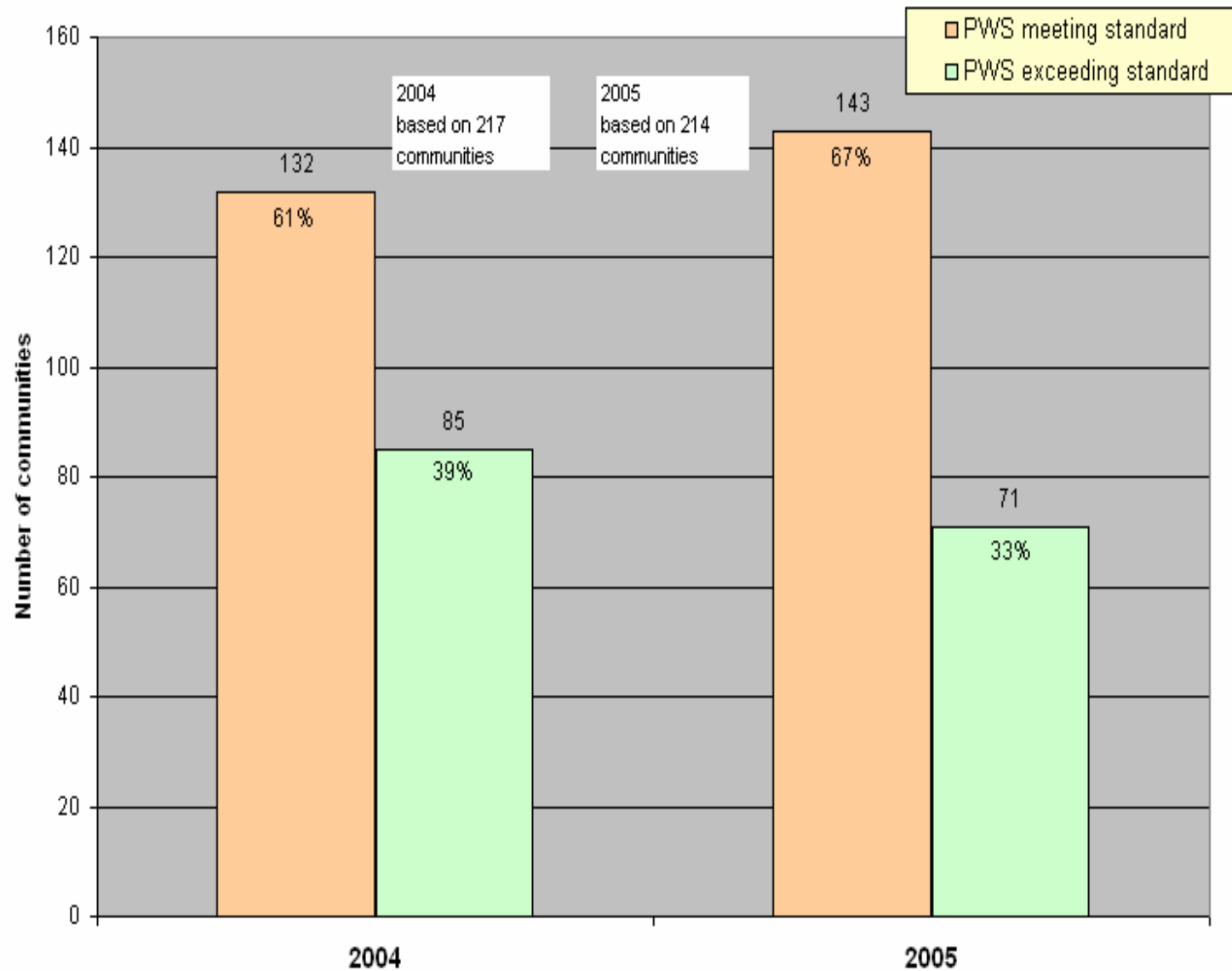


Performance Standards

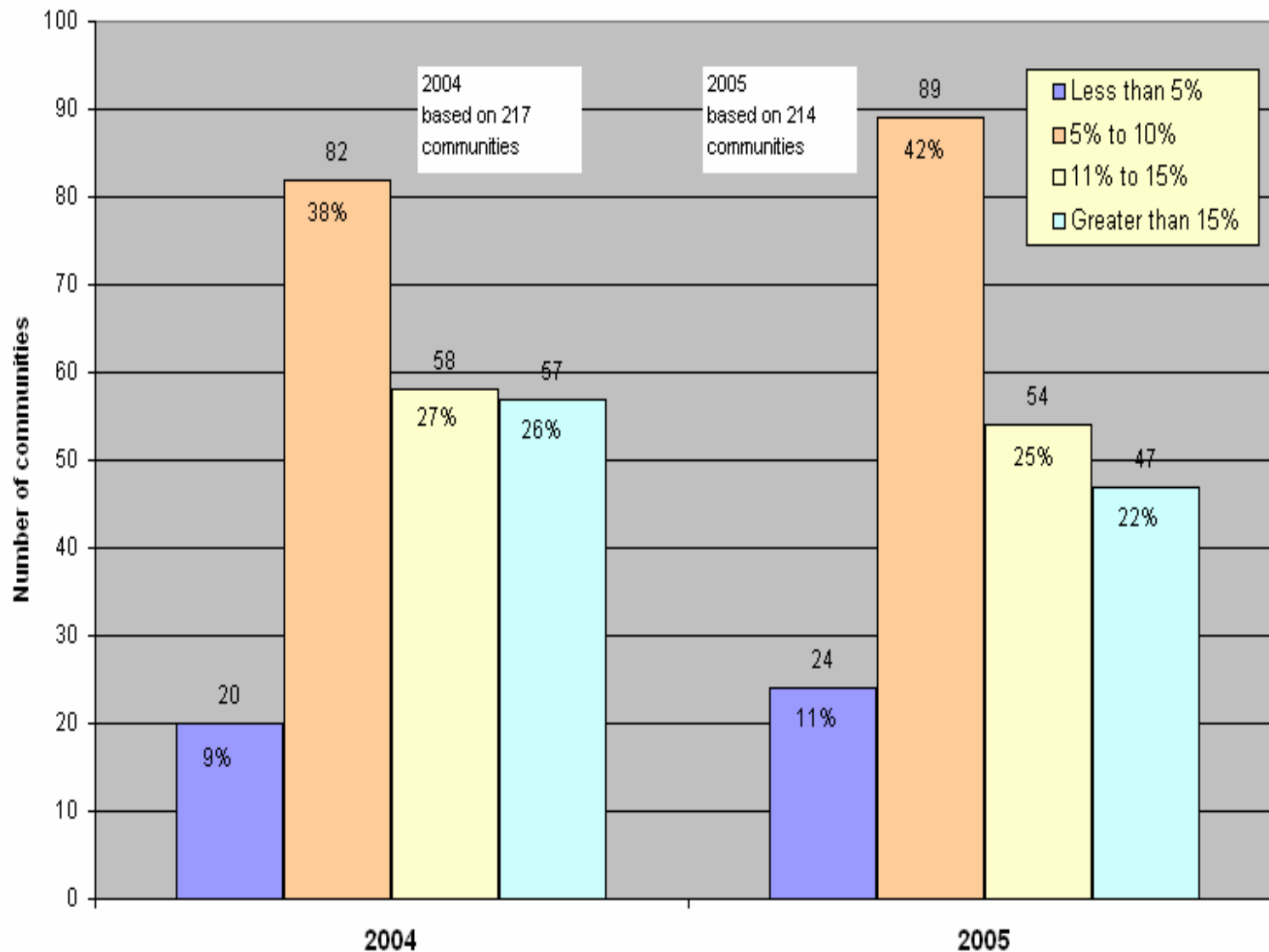
Unaccounted-for-Water (UAW)

- 2 full calendar years to comply
- High and Medium Stressed: 10% UAW
 - Enforcement Forbearance = 11% - 15%
- Low and Unassessed: 15% UAW
- 2005 State Average = 11%

**Unaccounted For Water (UAW) Standard Statewide
For Municipal Public Water Suppliers (PWS), 2004 - 2005**



**Distribution of Unaccounted For Water (UAW)
For Municipal Public Water Suppliers, 2004-2005**



Compliance Plans

Required by the end of the second full calendar year following a new, amended or modified permit for those who fail to meet the Performance Standard.

Enforcement forbearance until the next permit renewal or 5-year review.

- ✓ Do not exceed the enforcement margin.
- ✓ Comply with Plan
- ✓ Timely file ASR and other requirements
- ✓ Continue to demonstrate progress

RGPCD Compliance Plan

Must include one of the following programs:

- Provide water saving devices at cost
- Provide rebates or incentives for purchase of low water use appliances
- Require moisture sensors or similar climate control technology on automatic irrigation systems
- May require other actions

Lets PWS Choose Method to Meet Performance Standards

UAW

- Individualized Plan
- Identified BMP's

UAW Compliance Plan

Option A: BMP Compliance Plan

Must include:

1. Leak detection
2. Water meter inspection
3. Monthly or quarterly billing
4. Water pricing structure that covers full cost of operation

Option B: Individualized Compliance Plan

Summer Limits on Withdrawals

- Control nonessential outside water uses that are not required for:
 - health or safety reasons
 - by regulation
 - production of food and fiber
 - maintenance of livestock
 - core function of a business
- Two Options
 1. Calendar Trigger (May – Sept.)
 2. Stream Flow Trigger

Limits on Nonessential Outdoor Water Use

Restriction Allowance on Withdrawals

Action Trigger

Streamflow Measure

ABF default: 0.5 cfsm
Until
Protective Flow Targets
are established



No watering 9 am – 5 pm

No nonessential outside water use

- High Stressed Basin with summer to winter water use ratio > 1.2

1 day per week watering

- All Medium Stressed Basin
OR

- High Stressed Basin with summer to winter water use ratio < 1.2



OR

Seasonal Approach

May 1 - Sept. 30



No watering 9 am – 5 pm

1 day per week nonessential watering allowed:

- High Stressed Basin with summer to winter water use ratio > 1.2

2 days per week nonessential watering allowed:

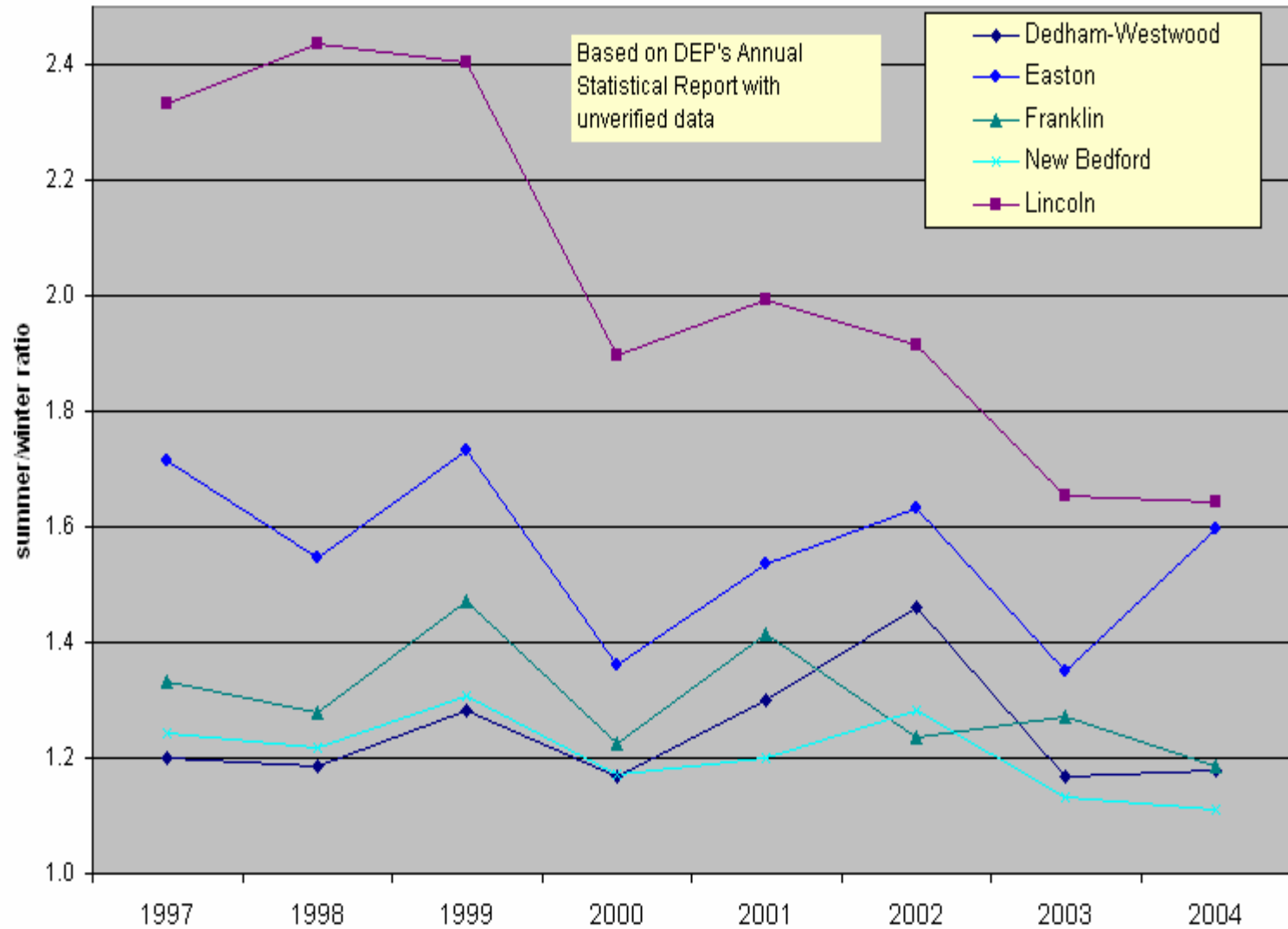
- All Medium Stressed Basin
OR

- High Stressed Basin with summer to winter water use ratio < 1.2

**AND
IF**

MA DMTF
Declares a Drought
Watch Level or
Higher

**Summer to Winter Water Use Ratio
for Selected Communities (1997-2004)**



WMA Permitting Policy

Offsetting Increases

Offsets for Withdrawal Increases (High & Medium)

- **Offsets may include:** stormwater management, LID, I/I removal, private well regulation, conservation, waterwater return, others?
- **Offset Feasibility Study and Implementation**
 - Required for increased water use
(Baseline Use= previous 3 year average, most recent year *or* *registered volume*, which ever is higher)
 - *High Stress conduct study 1st time exceeding BL/ after one full year*
 - *Medium Stress conduct study 1st time exceeding BL/ after 2nd full year of use*
 - *60 days from ASR submit study scope*
 - *6 months from DEP approval of Scope submit Study*
 - *After 60 days either submittal is presumptively approved*
 - *Implement the results of the Study upon exceedence of baseline in any future ASR*

ASR Revisions

- **Separate Water Management Act Form**
- **Calculation of UAW via Water Audit**
- **Defining residential accounts**
- **Options for determining population served**
- **Status on other reporting requirements**

Water Conservation Standards

- **Leak Detection Survey of Distribution System**
- **Education Program**
- **100% metering, meter calibration, repair and replacement**
- **Source meter calibration**
- **Full Cost Pricing**
- **Retrofit all public buildings with water savings devices**
- **Enforce Plumbing Code**